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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/737,471

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EXAMINER

HAN, CLEMENCE S

ART UNIT

PAPER NUMBER

2616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/737,471	<b>Applicant(s)</b> LEFEBVRE ET AL.	
	<b>Examiner</b> CLEMENCE HAN	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-21,23,24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-7,9,15,16,18-21,23,24,26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 5 is objected to because of the following informalities: “a line termination” in line 2 should be replaced with “said line termination”, (see Claim 3 line 2). Appropriate correction is required.
2. Claim 15 is objected to because of the following informalities: “said status of said first communications network” in line 7 should be replaced with “said status information of said first communication network”, (see line 2). Appropriate correction is required.
3. Claim 15 is objected to because of the following informalities: “said second communications network” in line 9 should be replaced with “said second communication network”. Appropriate correction is required.
4. Claim 18-20 are objected to because of the following informalities: “The communication system” in line 1 should be replaced with “The network status reporting method”, (see Claim 15 line 1). Appropriate correction is required.
5. Claim 20 is objected to because of the following informalities: “the second communication” in line 4 should be replaced with “the second communication network”. Appropriate correction is required.

6. Claim 21 is objected to because of the following informalities: “said status of said first communications network” in line 7 should be replaced with “said status information of said first communication network”, (see line 2). Appropriate correction is required.

7. Claim 21 is objected to because of the following informalities: “said second communications network” in line 9 should be replaced with “said second communication network”. Appropriate correction is required.

8. Claim 23 is objected to because of the following informalities: “the intermediate node” in line 4 should be replaced with “the at least one intermediate network node”, (see Claim 1 line 4). Appropriate correction is required.

9. Claim 26 is objected to because of the following informalities: “the intermediate node” in line 11 should be replaced with “the at least one intermediate network node”, (see line 3). Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 1-7, 9, 15, 16, 18-21, 23, 24, 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Regarding claim 1, the phrase "said network status information of said communication network" in line 7 renders the claim indefinite because it is unclear whether the limitation is the same network status information in line 6 or not. The examiner understood it as a network status information of the communication network in a neighbourhood around the at least one intermediate network node (see Claim 15 and 21 for the similar limitation).

13. Regarding claim 2, the phrase "network status information" in line 8 renders the claim indefinite because it is unclear whether the limitation is the same network status information in line 6 or not. The examiner understood it as a network status information of the communication network in a neighbourhood around the at least one intermediate network node (see Claim 15 and 21 for the similar limitation).

14. Claim 15 recites the limitation "said network status of said second communications network" in line 9. There is insufficient antecedent basis for this limitation in the claim. The examiner understood it as "a status information of said second communication network".

15. Claim 21 recites the limitation "said network status of said second communications network" in line 9. There is insufficient antecedent basis for this limitation in the claim. The examiner understood it as "a status information of said second communication network".

16. Regarding claim 26, the phrase "network status information" in line 8 renders the claim indefinite because it is unclear whether the limitation is the same network status information in line 6 or not. The examiner understood it as a network status information of the communication network in a neighbourhood around the at least one intermediate network node (see Claim 15 and 21 for the similar limitation).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 1, 2, 4, 6, 7, 9, 16, 23, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 5,367,523) in view of Demakakos (US 6,891,851) and further in view of Lauffenburger et al. (US 6,657,961).

Regarding to claim 1, Chang teaches a network status reporting method for reporting in a communications network a network status information to a data source 21 with an adaptive transmission rate in order to enable said data source to adapt said transmission rate based on said network status information (Column 8 Line 15-24), said communications network further comprising at least one

intermediate network node 22, and a data sink 23, wherein only said data sink reports to said data source on said network status information of said communications network in a neighbourhood around the data sink (Column 8 Line 7-9), wherein no intermediate network node reports to said data source on said network status information of said communications network (see Figure 2), wherein said communications network is a heterogeneous network comprising at least two different networks (Column 6 Line 16-20). Chang, however, does not teach at least one of which is not configured to perform available bit rate control technique. Demakakos teaches at least one of which is not configured to perform available bit rate control technique 50 (see Figure 1). It would have been obvious to one skilled in the art to modify Chang to include a network a not configured to perform available bit rate control technique as taught by Demakakos in order to provide high speed packet switched communication (Column 8 Line 40-46). Chang in view of Demakakos, however, does not teach the data sink initiates said reporting of the network status information to said data source without a request from said data source. Lauffenburger teaches the data sink 14 initiates said reporting of the network status information to said data source 12 without a request from said data source (Column 4 Line 49-58, also see 50 in Figure 2). It would have been obvious to one skilled in the art to modify Chang in view of Demakakos

to report without a request from the data source as taught by Lauffenburger in order to provide near instantaneous flow control due to detected congestion (Column 5 Line 27-31 and Column 7 Line 46-48).

Regarding to claim 2, Chang teaches a communications network comprising: at least one data source 21 with an adaptive transmission rate; at least one intermediate node 22; and at least one data sink 23, wherein said data source adapts said transmission rate on the basis of network status information (Column 8 Line 15-24), and wherein only said data sink is able to report said network status information of said communications network in a neighbourhood of the data sink to said data source (Column 8 Line 7-9) and no intermediate node is able to report network status information to said data source (see Figure 2), and wherein said communications network is a heterogeneous network comprising at least two different networks (Column 6 Line 16-20). Chang, however, does not teach said at least two different networks comprises a packet network and a frame relay network. Demakakos teaches said at least two different networks comprises a packet network 61 and a frame relay network 50 (see Figure 1). It would have been obvious to one skilled in the art to modify Chang to include a packet network and a frame relay network in the communication network as taught by Demakakos in order to provide high speed packet switched communication (Column 8 Line 40-



46). Chang in view of Demakakos, however, does not teach the data sink initiates said reporting of the network status information to said data source without a request from said data source. Lauffenburger teaches the data sink 14 initiates said reporting of the network status information to said data source 12 without a request from said data source (Column 4 Line 49-58, also see 50 in Figure 2). It would have been obvious to one skilled in the art to modify Chang in view of Demakakos to report without a request from the data source as taught by Lauffenburger in order to provide near instantaneous flow control due to detected congestion (Column 5 Line 27-31 and Column 7 Line 46-48).

Regarding to claim 4, Chang teaches said data sink 23 is a network termination in an access network of said communications network.

Regarding to claim 6, Chang teaches the data source 21 being used in the communications network according to claim 2.

Regarding to claim 7, Chang teaches the data sink 23 being used in the communications network according to claim 2.

Regarding to claim 9, Chang teaches said data sink is configured to regularly report to said data source on said network status information of said communications network (Column 8 Line 60-63).

Regarding to claim 16, Chang teaches the network status information is information about the status of a network segment around the data sink, the network status information comprises a report about at least one of: congestion, radio-frequency interference, and weather condition in the network segment around the data sink, and the report is communicated to the data source (Column 8 Line 7-9).

Regarding to claim 23, Chang teaches one of the at least two different networks form the neighborhood around the data sink and wherein the neighborhood around the data sink is different type of network from a network formed by the intermediate node (Column 6 Line 16-20).

Regarding to claim 24, Chang teaches the data sink is connected to a network termination element via a first communication network and wherein said network termination element is connected to the data source via the at least one intermediate network node of a second communication network, and wherein the first communication network is a different type of network from the second communication network (Column 6 Line 16-20).

Regarding to claim 27, Chang teaches the data sink is connected to a network termination element via a first communication network and wherein said network termination element is connected to the data source via the at least one

intermediate network node of a second communication network, and wherein the first communication network is a different type of network from the second communication network (Column 6 Line 16-20).

19. Claim 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Demakakos and Lauffenburger et al. as applied to claim 2 above, and further in view of Giroux et al. (US 6,963,538).

Regarding to claim 3, Chang in view of Demakakos and Lauffenburger, however, does not teach said data sink is a line termination in an access network of said communications network. Giroux teaches said data sink 19 is a line termination in an access network of said communications network. It would have been obvious to one skilled in the art to modify Chang in view of Demakakos and Lauffenburger to use data sink as a line termination as taught by Giroux in order to monitor network status around the line termination (s2 in Figure 3A).

Regarding to claim 5, Giroux teaches said network status information is a capacity of a link 16 between a network termination 18 and a line termination 19 in said access network of said communications network (Column 5 Line 61-65).

### ***Response to Arguments***

20. Applicant's arguments with respect to claim 1-7, 9-21, 23, 24, 26 and 27 have been considered but are moot in view of the new ground(s) of rejection.

21. In response to page 11-12, the applicant argues that Lauffenburger fails to teach unsolicited RM cells in a heterogeneous network environment. The claims does not specify how each limitations are related to each other. For example, the role of the intermediate node is not clearly stated. Even though, the intermediate node is a part of the communication network, it might have nothing to do with passing the network status reporting from the sink to the source as the way the claim is recited. Furthermore, as the way the heterogeneous network limitation is written, none of the sink, the intermediate node or the source has to be in the network which is not configured to perform ABR control technique.

***Allowable Subject Matter***

22. Claim 10-14 and 17 are allowed.

23. Claim 15, 21 and 26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

24. Claim 18-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLEMENCE HAN whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Friday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Clemence Han/

Application/Control Number: 09/737,471  
Art Unit: 2616

Page 13

Primary Examiner, Art Unit  
2616